What is claimed is:

1. A method of modifying a fluoropolymer comprising:

contacting the fluoropolymer with a modifying composition preparable from components comprising a phase transfer catalyst, at least one of a sulfide or polysulfide salt or anionic conjugate acid thereof, and a liquid vehicle; and

heating the modifying composition at a temperature of at least about 40 degrees Celsius while in contact with the fluoropolymer, wherein the fluoropolymer has a backbone comprising subunits having the structure $-CH_2CFX-$, wherein X represents H, Cl, or F.

2. A method of modifying a fluoropolymer according to claim 1, wherein the fluoropolymer backbone further comprises at least one of subunits having the structure $-CF_2CF_2-$ or subunits having the structure $-CF_2CF(CF_3)-$.

3. A method of modifying a fluoropolymer according to claim 1, wherein the fluoropolymer backbone further comprises subunits having the structure $-CF_2CF_2-$ and subunits having the structure $-CF_2CF(CF_3)-$.

4. A method of modifying a fluoropolymer according to claim 1, wherein the subunits are monomeric units.

5. A method of modifying a fluoropolymer according to claim 1, wherein the fluoropolymer is preparable from monomers comprising vinylidene difluoride.

6. A method according to claim 5, wherein the monomers further comprise at least one of tetrafluoroethylene or hexafluoropropylene.

7. A method according to claim 6, wherein the monomers further comprise tetrafluoroethylene and hexafluoropropylene.

8. A method of modifying a fluoropolymer according to claim 1, wherein X is H.

9. A method of modifying a fluoropolymer according to claim 1, wherein X is F.

10. A method of modifying a fluoropolymer according to claim 9, wherein the fluoropolymer backbone further comprises at least one of subunits having the structure $-CF_2CF_2-$ or monomeric units having the structure $-CF_2CF(CF_3)-$.

11. A method of modifying a fluoropolymer according to claim 9, wherein the fluoropolymer backbone further comprises subunits having the structure $-CF_2CF_2-$ and subunits having the structure $-CF_2CF(CF_3)-$.

12. A method of modifying a fluoropolymer according to claim 9, wherein the subunits are monomeric units.

13. A method of modifying a fluoropolymer according to claim 9, wherein the fluoropolymer is preparable from monomers comprising vinylidene difluoride.

14. A method according to claim 13, wherein the monomers further comprise at least one of tetrafluoroethylene or hexafluoropropylene.

15. A method according to claim 14, wherein the monomers further comprise tetrafluoroethylene and hexafluoropropylene.

16. A method of according to claim 1, wherein the fluoropolymer comprises a film.

17. A method of according to claim 16, further comprising bonding the film to a substrate.

18. A method according to claim 17, wherein bonding comprises adhesive bonding.

19. A method according to claim 17, wherein bonding comprises heat laminating.

20. A method according to claim 17, wherein the substrate comprises a film.

21. A method according to claim 17, wherein the substrate comprises at least one thermoplastic polymer.

22. A method according to claim 17, wherein at least one thermoplastic polymer comprises polyamide.

23. A method according to claim 1, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 16 carbon atoms.

24. A method according to claim 1, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 20 carbon atoms.

25. A method according to claim 1, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 24 carbon atoms.

26. A method according to claim 1, wherein the liquid vehicle comprises water.

27. A method according to claim 1, wherein the modifying composition is heated at a temperature of at least about 60 degrees Celsius while in contact with the fluoropolymer.

28. A method according to claim 1, wherein the modifying composition is heated at a temperature of at least about 80 degrees Celsius while in contact with the fluoropolymer.

29. An article comprising a fluoropolymer modified according to claim 1.

30. An article comprising a fluoropolymer modified according to claim 2.

31. An article comprising a fluoropolymer modified according to claim 3.

32 An article according to claim 29, wherein the article comprises a composite article.

33. An article according to claim 32, wherein the composite article comprises a first substrate having a surface comprising the modified fluoropolymer and a second substrate bonded to the surface.

34. An article according to claim 33, wherein the second substrate is bonded to the surface of the first substrate by adhesive.

35. An article according to claim 33, wherein the second substrate contacts the surface of the first substrate.

36. An article according to claim 33, wherein at least one of the first or second substrates comprises a film.

37. An article according to claim 33, wherein the second substrate comprises thermoplastic polymer.

38. An article according to claim 37, wherein the thermoplastic polymer comprises polyamide.

39. A method of preparing a composite article comprising:

providing a first substrate having a surface comprising fluoropolymer;

contacting the surface of the first substrate with a modifying composition preparable from components comprising a phase transfer catalyst, at least one of a sulfide or polysulfide salt or anionic conjugate acid thereof, and a liquid vehicle, wherein the fluoropolymer has a backbone comprising subunits having the structure $-CH_2CFX-$, wherein X represents H, Cl, or F; and

bonding the first substrate to a second substrate to provide a composite article, wherein the method is carried out in the substantial absence of actinic radiation.

40. A method of modifying a fluoropolymer according to claim 39, wherein the fluoropolymer backbone further comprises at least one of subunits having the structure $-CF_2CF_2-$ or subunits having the structure $-CF_2CF(CF_3)-$.

41. A method of modifying a fluoropolymer according to claim 39, wherein the fluoropolymer backbone further comprises subunits having the structure $-CF_2CF_2-$ and subunits having the structure $-CF_2CF(CF_3)-$.

42. A method of modifying a fluoropolymer according to claim 39, wherein the subunits are monomeric units.

43. A method of modifying a fluoropolymer according to claim 39, wherein the fluoropolymer is preparable from monomers comprising vinylidene difluoride.

44. A method according to claim 43, wherein the monomers further comprise at least one of tetrafluoroethylene or hexafluoropropylene.

45. A method according to claim 43, wherein the monomers further comprise tetrafluoroethylene and hexafluoropropylene.

46. A method of modifying a fluoropolymer according to claim 39, wherein X is H.

47. A method of modifying a fluoropolymer according to claim 39, wherein X is F.

48. A method of modifying a fluoropolymer according to claim 47, wherein the fluoropolymer backbone further comprises at least one of subunits having the structure $-CF_2CF_2-$ or subunits having the structure $-CF_2CF(CF_3)-$.

49. A method of modifying a fluoropolymer according to claim 47, wherein the fluoropolymer backbone further comprises subunits having the structure $-CF_2CF_2-$ and subunits having the structure $-CF_2CF(CF_3)-$.

50. A method of modifying a fluoropolymer according to claim 49, wherein the subunits are monomeric units.

51. A method of modifying a fluoropolymer according to claim 49, wherein the fluoropolymer is preparable from monomers comprising vinylidene difluoride.

52. A method according to claim 51, wherein the monomers further comprise at least one of tetrafluoroethylene or hexafluoropropylene.

53. A method according to claim 51, wherein the monomers further comprise tetrafluoroethylene and hexafluoropropylene.

56. A method according to claim 39, wherein bonding comprises adhesive bonding.

57. A method according to claim 39, wherein bonding comprises heat laminating.

58. A method according to claim 55, wherein the first substrate comprises a film.

59. A method according to claim 55, wherein at least one of the first or second substrates comprises at least one thermoplastic polymer.

60. A method according to claim 59, wherein at least one thermoplastic polymer comprises polyamide.

61. A method according to claim 39, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 16 carbon atoms.

62. A method according to claim 39, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 20 carbon atoms.

63. A method according to claim 39, wherein the phase transfer catalyst comprises a tetraalkylphosphonium or tetraalkylammonium salt having at least 24 carbon atoms.

64. A method according to claim 39, wherein the liquid vehicle comprises water.